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Mr. Dwight E. Shelor, Associate Director for Systems and Compliance Office of Civilian Radioactive Waste Management U.S. Department of Energy 1000 Independence Avenue, SW Washington, DC 20585

Dear Mr. Shelor:

SUBJECT: SUMMARY OF THE JUNE 8, 1993, TECHNICAL EXCHANGE ON GEOPHYSICS INTEGRATION

The purpose of this letter is to transmit the summary for the June 8, 1993, U.S. Nuclear Regulatory Commission/U.S. Department of Energy (DOE) technical exchange on geophysics integration. The technical exchange was also attended by representatives of the State of Nevada and affected units of local government. The purpose of the technical exchange was to discuss DOE's geophysics initiative.

Based on presentations by DOE representatives at the technical exchange, the NRC staff believes that the DOE has made progress toward establishing an integrated geophysics program. Assessments of the tectonic, hydrologic, and volcanic characteristics of the Yucca Mountain site now appear to be supported by a program to conduct necessary geophysical tests. However, before the NRC staff can conclude that geophysical tests are integrated with other site characterization activities, such a program must be implemented.

The NRC staff, in its Site Characterization Analysis (SCA), identified a concern related to the sequencing of activities that would provide input to other site characterization activities (Comment 59). A specific basis for the staff's concern was that the "siting and initial construction of the exploratory shafts [studies facility] will have occurred prior to the determination of geophysical methods that will be used to examine subsurface characteristics of faults.... Concerns related to the sequencing of geophysical activities were also highlighted in the letter transmitting the SCA (Bernero to Rousso, July 31, 1989), and in the Director's Summary in the SCA. The staff continues to be concerned that certain geophysical and seismic tests for the assessment of geologic and hydrologic conditions may not be conducted in a timely manner to provide necessary input to other activities. Improper sequencing or timing of tests could result in a loss of borehole logging data, premature decisions about the location of trenches or drillholes, and, most importantly, premature decisions about exploratory studies facility design, based on incomplete data.

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Should you have any questions related to the summary or this letter, please contact Ms. Charlotte Abrams of my staff at (301) 504-3403.

Sincerely,

Joseph J./Holonich, Director Repository Licensing and Quality Assurance Project Directorate Division of High-Level Waste Management Office of Nuclear Material Safety and Safeguards

Enclosure: As stated

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